



Montgomery County Fire and Rescue Service

POST INCIDENT ANALYSIS

**2nd Alarm House Fire
203 2nd Avenue
Washington Grove, MD**

Incident Date: January 14, 2014



**Submitted by
Battalion Chief John P. Van Gieson**

Incident Summary:

On January 14, 2014 at approximately 0638 hours, MCFRS units responded to 203 2nd Avenue, Washington Grove, MD for a reported house fire. Prior to the arrival of the first due engine company, (Paramedic Engine 708) additional 911 calls were received and the Rapid Intervention Dispatch was dispatched. Upon arrival, units found a single family home well involved with flames encroaching upon the exposure buildings. Units had difficulty navigating the streets and unpaved walkways of the community and as a result had to deploy longer supply and attack lines to engage the fire.

Through aggressive fire attack and placement of attack lines on the exposures, the fire was held to the fire building with minimal external damage to both the Bravo & Delta exposure buildings.

Incident Operations:

Note: This post incident analysis (PIA) is based upon review of the incident audio tape, interviews with crews who operated at the fire scene and the review of PIA Unit Fact Sheets.

Paramedic Engine 708 notified Paramedic Engine 728 that they would lay-out from the hydrant in the “The Circle’ & 5th Ave”. Paramedic Engine 708 was unable to access the “The Circle” off of 7th Ave due to poorly identified street signs and limited visibility (no street lights), as well as the fact that 7th Avenue is a narrow unpaved designated walking path. Paramedic Engine 708 again attempted to gain access to “The Circle” via 6th Avenue but had to stop 100 feet short of their designated hydrant due to the fact 6th Avenue was also an unpaved walking path that narrowed considerably. Paramedic Engine 708 instructed Paramedic Engine 728 to pick up their split on the corner of 6th Avenue and Grove Rd and complete the lay to the hydrant at McCauley & 5th Avenue.

Paramedic Engine 708 stretched their 300’ 2” attack line and attached their highrise pack to advance to the fire. This was enhanced by the fact that Paramedic Engine 708 responded with a five (5) person crew on this incident. Once their first attack line was in place, Paramedic Engine 708 deployed a second attack line; 250’ 2” attack line attached to Paramedic Engine 728’s highrise pack to reach the fire.

Paramedic Engine 708 gave an initial on-scene report while advancing their attack line:

“Two story Single Family Home with fire showing from the 1st and 2nd floors, Sides Alpha & Delta.”

Battalion Chief 703 arrived on the scene shortly after Paramedic Engine 708, assumed Command and positioned the Command Post on 1st Avenue directly across from the fire building. The Incident Commander originally believed he was positioned on Side Charlie as opposed to Side Alpha. Command observed fire from the 1st and 2nd floors and direct flame impingement to the exposure building.

Faced with the advanced fire conditions encroaching on two close exposures, Command called for a second alarm along with “defensive operations” and ordered Paramedic Engine 708 to protect Exposure Bravo.

Engine 703 Bravo, dispatched 4th due, was delayed during their response due to a train at the railroad crossing. Paramedic Engine 703 assumed the 4th due position. Paramedic Engine 703 also had difficulty accessing their designated hydrant due to community wooden posts positioned in the middle of the unpaved walking paths. Paramedic Engine 703 stretched a 500' supply line to a hydrant behind the church on Chestnut Avenue, positioned their apparatus on Miller Drive and advanced a 250' 2" attack line to the Bravo Exposure.

Engine 703 Bravo laid-out from Center Street and Grove Ave and positioned their apparatus on Grove Avenue near 2nd Avenue. Engine 703 Bravo was able to gain access to this unpaved walking path by removing posts designed to block out vehicles. Engine 703 Bravo pulled a 250' 2" attack line to Side Charlie of the structure.



Image of Exposure Bravo – showing separation between houses & melted siding

Rescue Squad 703 positioned on Grove Road near Locust Lane and proceeded to search the Bravo Exposure and check for fire extension. Truck 703 positioned on Grove Road and proceeded to search the Delta Exposure and check for extension. Truck 703 also placed several ladders on Side Alpha of the Delta Exposure. Once Rescue Squad 703 completed the search of the Bravo Exposure they went to the fire building. Under the direction of Battalion Chief 703 Bravo, Rescue Squad 703 searched quadrants Bravo & Charlie of the first floor; conditions in the other parts of the house were untenable. Truck 703's crew assisted with forcing entry to the Side Charlie door on the fire building, during which two firefighters were injured.

With three (3) attack lines in place on Side Alpha of the incident, the exposures were protected, the fire was contained to the fire building, and eventually extinguished by MCFRS personnel.



Image of Exposure Delta with melted shingles

The 2nd Alarm units were placed in service without being utilized. The first alarm was held to overhaul quadrants Bravo & Delta and assist with the fire investigation. Additional EMS units were called to transport injured firefighters.

Investigations:

MCFRS Fire and Explosives Investigators responded to the incident and began their investigation; however, due to the fire damage to the supporting structures on Side Alpha and in Quadrants Alpha & Delta, the investigators were unable to complete their investigation and determine origin or cause. The cause remains listed as “undetermined”.

Damage: \$150,000 to structure and \$50,000 to contents.



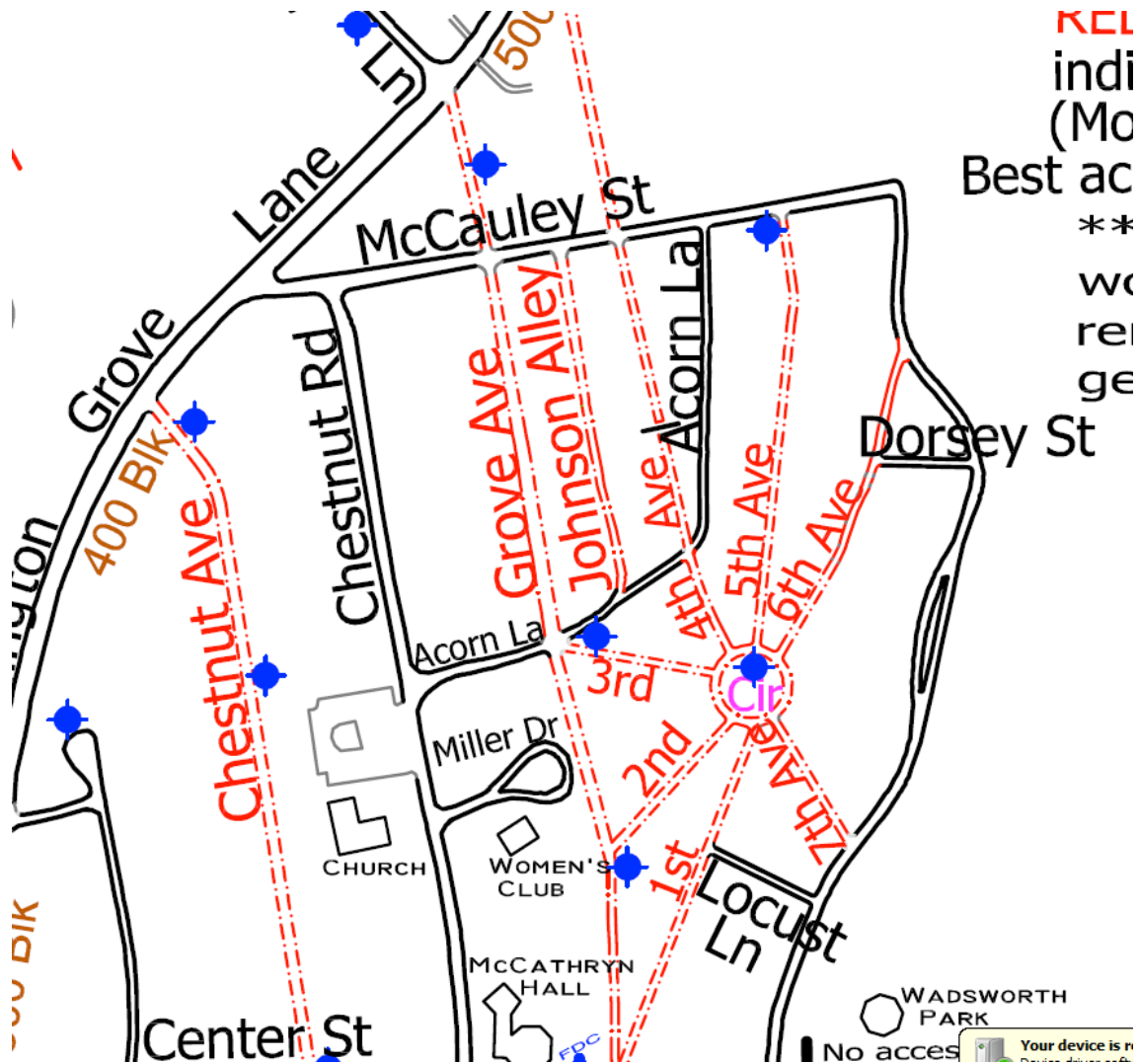
Image of Side Alpha

Structure/Site Layout:

The community of Washington Grove is home to over 550 residents in 230 houses, its roots date back to the early 1870's. Many homes are tightly packed together and most homes face unpaved walking paths with paved roads running parallel to the paths but to the rear of the structures.

203 2nd Avenue is a Type V wood framed single family home; 2 stories on Side Alpha and single story on Side Charlie. Total size of the structure is approximately 1,600 feet.

Exposure Bravo is a 2 story Type V wood framed single family separated from 203 2nd Avenue by about 6 feet.



Section from Map 8-323



Aerial Image of 2nd Avenue

Communications:

There were no communications system issues during this incident and VRS was not needed, nor was it engaged.

Pre-Emergency Planning:

There were no Pre-Emergency Plans for this specific structure.

Staging:

2nd Alarm units were instructed to stage in the vicinity of Grove Road and Center St. Many units were unable to locate this area due to poor street signs and confusion of the pre-plan map.

Support Functions:

Canteen 708 responded and assisted with the rehab of personnel. In addition, Mobile Air Unit 733 responded and assisted with the refilling of SCBA cylinders. PEPCO pulled the meter to Exposure Bravo due to thermal damage.

Safety:

Ambulance 708 was designated as the "2-out" by Paramedic Engine 708 during their Initial On-Scene Report. Engine 753 assumed the Rapid Intervention Company functions upon arrival and positioned crew on Side Alpha of the fire building. Truck 731, Rescue Squad 717, and Medic 708 were dispatched as the Rapid Intervention Dispatch and worked with Engine 753 to form the Rapid Intervention Group.

Safety 700 arrived and was assigned as the Incident Scene Safety Officer. Rehab was established by EMS703 on Chestnut Street at Acorn Lane; Ambulance 708 assisted after being relieved of the 2-out.

During the incident, four (4) firefighters sustained injuries (two back injuries, an elbow and a laceration) and all four were transported to the hospital from the scene. Three (3) firefighters lost time due to their injuries.

Accountability:

Accountability was completed on the ICS tactical worksheet; however no accountability board was utilized during this incident, nor were PASS tags collected. Command was not aware of up-staffing on units until after the incident had been mitigated, and Command was unaware that multiple units moved between the structures (exposures and the fire building).

Things that went well:

1. Units were able to overcome access issues in a timely manner and execute contingency plans. Crews worked very well together coordinating efforts.
2. Paramedic Engine 708, staffed with five (5) personnel, as well as the assistance from additional units allowed for rapid deployment of multiple extended attack lines.
3. Proper initial strategy; Defensive operations which transitioned to interior fire attack. Exposures were adequately protected and limited damage to the exterior.
4. The call came in at shift change which allowed for additional resources to respond in an up-staffed capacity (i.e. BC703 responded with driver)
5. Crew integrity was maintained.

Areas for improvement:

1. Units had a difficult time locating the incident and navigating their way in Washington Grove
 - a. Street signs were small and difficult to see; wooden signs with white lettering on brown background.



- b. Many streets in the neighborhood are narrow unpaved walking paths that apparatus could not traverse.



- c. Station street maps did not adequately distinguish paved roads from walking paths.
- d. A majority of key hydrants were located on unpaved walking paths which apparatus could not access easily.



- e. MDC maps failed to identify streets that were intermittent with dead-ends

2. The Command Post was initially thought to be on Side Charlie of the fire building, thus there was confusion regarding terminology of exposures and locations of units.
3. Many unit officers were unfamiliar with Washington Grove and unique design of the community.
4. Confusion with running order; CAD recommends Engine 703 Bravo before Paramedic Engine 703.
5. The staging location for the 2nd alarm units was inadequate in size for the number of resources responding to the incident; designation of a staging officer could have assisted with relocating resources.
6. Two of the injuries that occurred to firefighters occurred because of poor tactical decision making and could have easily been circumvented.
7. Command failed to ensure that units reported to, and were cleared by, Rehab before re-engaging in the incident.

UNITS ON INCIDENT

1st Alarm

Paramedic Engine 708	Paramedic Tower 708	Ambulance 708
Paramedic Engine 728	Truck 703	Battalion Chief 703
Engine 753	Rescue Squad 703	Battalion Chief 705
Engine 703 Bravo		
Paramedic Engine 703		

RID

Truck 731	Medic 708
Rescue Squad 717	

2nd Alarm

Paramedic Engine 734	Truck 734	Medic 708 Bravo
Paramedic Engine 733	Tower 723	Mobile Air Unit 733
Paramedic Engine 731		Canteen 708
Paramedic Engine 717		

Additional Resources

Ambulance 728
Ambulance 732

Conclusion

Though there was much confusion regarding the layout of the community and access to the incident scene, crews were able to overcome these obstacles and mitigate this incident quickly. The Initial On-Scene Report indicated the fire building was well involved on both floors and through the roof, as well as spreading to the exposure building. The quick actions of the first alarm units were able to save the exposure with very little damage.

Still, we as a department have a responsibility to learn from incidents and strive for better performance on future events. Station officers need to ensure that maps are updated and personnel are engaged with area familiarization drills. Firefighters and unit officers need to maintain situational awareness to limit occurrence of injuries.

Since this incident occurred, the following actions have taken place:

1. The station maps have been updated to reflect:
 - a. Paved roads verses unpaved walking paths
 - b. The walkway signs can be removed to facilitate access to homes
2. Location information is being added to the Computer Aided Dispatch database to provide specific access instructions to responding units
3. MCFRS has met with Washington Grove Community leaders to recommend:
 - a. Street Signs be changed from small wooded signs to standard metal street signs
 - b. Residents affix address numbers and street names to individual homes
 - c. Reflective disks or tape be affixed to street sign posts, as well as walkway posts
 - d. Instructions be placed on the walkway posts to assist first responders with removing these posts to gain better access to the community in the event of an emergency
 - e. Reflective metal posts be placed at all hydrates in the Washington Grove community